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THE
CANADA JOURNAL
OF
DENTAL SCIENCE.

VOL. I.]

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[No. 8.

ORIGINAL COMMUNICATIONS.

EDITORIAL NOTES ON PRACTICAL SUBJECTS.

KEEPING THE MOUTH DRY WHILE FILLING.

BY C. S. CHITTENDEN.

MR. EDITOR,—Will you be so kind as to tell me, through the columns of the Journal, what means to adopt to keep the mouth dry, while filling teeth in the lower jaw. In many cases, I find it impossible to keep back the saliva, while filling large cavities in the lower molar and bicuspid; and as most of the Dentists of my acquaintance, are similarly troubled, I, with them, shall feel greatly obliged, if, in the next No. of the Journal, you will give us a few hints on the subject.

B. B.

The above is a sample of the numerous inquiries which have been made to me within the last few weeks, on this subject, and I propose to answer *all* enquirers, by giving the methods which I have adopted, and which have proved very successful in my hands. The "rubber dam," I consider to be the very best possible preventive to "flooding," when ever it can be employed. It should be from four to six inches square, and should be put over two or three teeth, and pressed down a little under the margin of the gum: then a strong piece of wetting cord, or stout thread should be passed around the tooth or teeth, and tied firmly, so as to prevent the rubber from rising. This is perfectly effectual, when it can be used, as I said before, but, unfortunately, I have met with many cases, where the mouth was so small, the buccinator

and masseter muscles so strong, and the cheeks so fat, that I could not by any means in my power, keep the rubber on the teeth. In such cases, I formerly used small napkins, made from linen birds-eye diaper, which I placed under the tongue and in the cavity of the cheek. By renewing the napkins as they became wet, I could almost always succeed in inserting very large fillings without trouble from the saliva, but the harsh nature of the diaper, frequently irritated the mouth so much as to be exceedingly unpleasant to the patient,

Recently, at the suggestion of a friend, I have been using strips of well worn cotton cloth, instead of linen napkins, with the happiest results. I tear the cotton into strips, from two to three inches in width, according to the size of the mouth to be operated upon, and roll them into rolls as thick as the circumstances of the case demand. I have several of these rolls at hand, so that I can change them from time to time should they become saturated with the saliva. When I am ready to commence filling, I take a *roll* of the size required and bend it into the shape of the letter U, and ask the patient to raise the tongue to the roof of the mouth, when I place the *bevel* of the roll under the tongue, covering the ducts of the sublingual and sub-maxillary glands, and then push the ends of the roll back, and down, by the side of the tongue, thus elevating it into the centre of the mouth and forcing it away from the teeth. If the roll of cotton is properly put into the position indicated, and the ends of the U extended back far enough, the tongue and the salivary ducts under it, can be controlled almost perfectly, by getting the patient to hold the roll in position, with two of his fingers, one on each side. Then I take a small square pad of the cotton and place over the duct of Parotid gland, which will absorb most of the discharge from it, after which I place another roll between the alveolus and the cheek, to take up any excess of saliva from the Parotid gland, which the *pad* covering the duct of that gland may not retain, and then having turned the head over to the side opposite to the one on which I intend to operate, so that the saliva from the Parotid duct on the opposite side will not run across the mouth, I proceed to my operation of filling. If I find that the rolls have become saturated with saliva, I first see that my thumb and fore-finger are perfectly dry, when clasping the tooth which I am filling between them, I remove the roll or rolls of cotton and put others in their place and proceed with my filling. In nineteen cases out of twenty there will be no necessity for changing the rolls, during a long operation.

In a future No. I propose to give the method which I frequently adopt for keeping the mouth dry, when filling difficult cavities in the superior Incisors.

NECROSIS OF A PART OF THE INFERIOR MAXILLARY BONE.

BY CHARLES P. LENNOX.—CHATHAM

I give an account of the following case in order to stimulate the younger members of the profession to action, by showing how easily aggravated forms of disease, sometimes yield to very simple remedies.

I am well aware that we all feel timid at times, when we are called upon to treat, what appears to be an aggravated case, calling for speedy and effective treatment, and feel more like referring the patient to the medical man, than contending with it ourselves.

A thorough knowledge of what we have to deal with, and the means necessary to restore the parts to health, are highly necessary. I would not advise any one to grapple with what he does not understand; but would say in the words of the renowned Davy Crockett "be sure you are right, then go ahead."

On the 9th of February last, a German woman, of strong constitution and about forty years of age, was recommended to me to have an ulcerated tooth extracted, by her physician. I found upon inquiry, she had been suffering for five months, and that the tooth was free from caries or disease of any kind. I also discovered that the fangs of the inferior *dens sapientiæ* were remaining, having been broken by an unsuccessful attempt at extraction. There were two fistulous openings, one back of the second molar, and one in front of it, upon the side of the jaw, while the first molar was gone. The jaws could not be opened but remained fixed, and had been so for several weeks, the patient subsisting upon liquid food. I extracted, with difficulty, the remaining molar, and by an incision, exposed the bone, and after taking away the pieces of loose dead bone, the largest being an inch long, and three quarters of an inch wide, I injected a weak solution of Nitrate of silver, into the wound, and directed the patient to call in one week.

Upon the second visit the part gave a healthy appearance, the discharge had ceased, the mouth could be opened, patient free from pain, and to day enjoys good health.

A LECTURE

Delivered before the Union Dental Association at Toronto, by WM. CANNIFF, M. D., M. R. C. S., Eng., Prof. of Surgery, University Victoria College, and Secretary to the Canada Medical Association.

PATHOLOGY OF THE TRIFACIAL, OR FIFTH PAIR OF NERVES.

(Continued.)

How frequently the dentist is consulted because of a severe tooth-ache. He finds upon examination there is positively no cavity. But the patient insists that a certain tooth shall be extracted which the skilled dentist reluctantly does; and the tooth is found to be perfectly sound; notwithstanding the extraction of the tooth the pain continues. Here was a sense of pain located in a sound tooth, due to a cause remotely situated. Again, there is a neuroma, a fibrous growth upon the nerve, or a tumour is pressing upon it which produces pain in another part. In these cases there is an incorrect message delivered, because the telegraph wire is injured and out of order.

Again on the other hand, how frequently is the medical man consulted concerning a severe pain, not in the teeth, not very near the jaws—neuralgia perhaps, or ear-ache; perhaps a want of sensation in a particular region, or a paralysis. After due examination he has no difficulty in arriving at the conclusion that some old fangs of a tooth, or an exposed nerve from caries is the cause of the ailment. He directs the patient to a dentist, who, by removing a root or two, cures him without medicine. In this case we see another form of deranged function; as soon, or shortly after the removal of the decayed tooth the neuralgia in the head, or arms, or elsewhere, as the case may be, is effectually removed. There is not only this uncertainty about the location in a single nerve, but the difficulty extends further. Perhaps the cause of pain is neither at the nerve centre nor at any of the periphery, nor in the course of the nerve which is painful. It may be in a remote branch of a common nerve, or in some portion of a nerve which is connected by anastomoses. The effects of the irritation are referred to a remote distribution. We have what is known as Referred Sensation, and this complication may be extensively increased by means of the sympathetic nerves and ganglia.

Before proceeding further upon this point, it is well to state that disease of a nerve, whether it be at its origin, along its course, or its

periphery, may be followed by two classes of symptoms. There may be change and increase of function ; or there may be loss of function ; that is, to say, the disease destroys the nerve so far as its sensibility is concerned. This loss of function may be partial and complete.— There may be paralysis—the paralysis may refer to motion, or it may refer to sensations, *incito-motary*. The paralysis may be of the *vaso motor* nerve fibres, causing passive congestion. The nutritive nerve fibres may be affected, by which irritation is much less active. Thus an irritation, starting from either the trunk, branches, or ultimate ramifications of nerves, may be led to exalted and altered function ; or, on the contrary, it may produce more or less paralysis. Instances of which are presented in such affections as epilepsy, tetanus, hysteria, cholera, hydrophobia, indeed, all convulsive affections ; also, delirium, coma, neuralgia, &c.

Thus, we have certain direct effects of irritation, whether peripheric or central ; or on the other hand, indirect or reflex.

These effects are :—1st. Contraction of muscles, often spasmodic ; 2nd. Referred Sensation, such as pricking, wrong feelings of heat, cold, &c. ; 3rd. where the nutrition is affected.

Now, I wish to speak more particularly of referred sensation or irregular reflex action. Says Dr. Brown Séquard, “ every form, every kind of paralysis, has been produced by a reflex action, caused by an irritation of a nerve. In children, especially, reflex paralysis is very frequent ; in adults, the muscles of the eye are very often paralysed by reflex action.” Neuralgia, or irritation of a dental nerve is often the cause of mydriasis or dilatation of the pupil. Likewise the various muscles of the eye have been found paralysed in cases of wound of the infra, or supra orbital nerves, or in cases of neuralgia. Cases of hemiplegia, that is, paralysis of one side of the body are recorded, in which the disease was limited to a part of a limb, as the face, or the eye, due to *ticdouloureux*. Dr. Shearman mentions a case of hemiplegia of the right limbs, caused by neuralgia of the right inferior maxillary nerve. Brown Séquard, records seventeen cases of hemiplegia from morbid reflex action, due to irritation of the fifth nerve near its origin, or of the *crus cerebelli*. Almost every Physician has met, with cases of hemiplegia, caused by a diseased tooth which was entirely removed by the extraction of the tooth.

Anæsthesia, loss of sensation, is not a rare thing, from morbid reflex action. One whole side of the face has been repeatedly affected,

which was due to neuralgia of the trifacial nerves of the same side. Brown Séquard mentions a case of anæsthesia of part of the forehead and face, in consequence of the irritation of a branch of the fifth pair on the cheek bone, by a bruise. I might continue to enumerate instances of morbid reflex action and sensation, in connection with the fifth pair of nerves, such as amaurosis, where there is diminution or complete loss of sight, without any external mark thereof, the optic nerve or retina, being affected. This is a not uncommon result by reflex action, of diseases of the supra-orbital or infra-orbital nerve, especially neuralgia; also, after injuries of those nerves. Many cases are recorded in which amaurosis was cured by curing the neuralgia. Indeed, there is no nerve which possesses so much power to cause reflex morbid function, as the fifth pair. This is, of course, due to the extensive nature of the distribution of this pair, as well as its numerous anastomoses.

Neuralgia, or *tic douloureux* is a term often used, without, perhaps, any specific idea as to its purport. We are prepared, however, to understand why such, should be the case. Neuralgia is characterized principally by acute pain, sudden in its onset and disappearance. It is due to pathological irritation of the nerve, by which the component elements of a nerve trunk are disturbed, and thereby incapacitated to carefully discharge their duty. It is akin to inflammatory action. Now, the primary irritation, we have seen may exist in the trunk of the nerve, or at the periphery of one of its branches. One of the most common sources of neuralgia is in connection with the fifth nerve, and it is very frequently seen arising in a small dental nerve where the tooth is decayed. Consequently, neuralgia of the face is by far the most ordinarily met with by the surgeon and the dentist. But neuralgia of the fifth nerve may be produced by other causes.—It may be the result of irritation in other nerves, while, also, an irritation of the nerves of the jaws may cause a neuralgia elsewhere than in the face. A few instances may be given:—Tumours on the head, pressing upon a nerve have caused neuralgia, and the removal of the tumour effectually cured the disease. An injury to a nerve in one side of the body has produced neuralgia upon the other side. Neuralgia of the left temple has resulted from a severe cut over the right parietal bone. Cases are recorded in which there was neuralgia of the arm, caused by an irritation of the dental nerve, from a decayed tooth. These were always cured by the extraction of the

decayed tooth. A tumour upon the inferior dental nerve has caused facial neuralgia. Dr. Green, of New York, has by removal of such tumour, cured the neuralgia. Repeatedly, division, or excision of a portion of the orbital nerve has removed neuralgia—sometimes of years standing. Burns, and the resulting cicatrix as well as wounds, have caused neuralgia, which nothing but excision would remove.

Neuralgia is very likely to lead to alterations in nutrition, not alone of the soft parts, but in the teeth. In all cases where there is disease of a dental nerve, during the period of growth, there will result defective formation of the tooth. And at any period of life, it will impair their integrity, and tend to decay.

In like manner deranged action of the nerve may cause morbid secretion, or completely arrest it, as of the saliva. It may induce cataract as well. These morbid secondary results may remain there after the primary and secondary causes have passed away, or have been cured; even after a portion of the nerve has been removed.

Again, neuralgia may lead to, or cause grayness of the hair, or some affection of the ear. Not unfrequently, neuralgia is complicated with Hysteria, a protean malady of constant occurrence. Instances are recorded in which Hysteria succeeded facial neuralgia, and came on regularly at the same hour of the day as the neuralgia had. Now here is an affection of the fifth nerve, extending to the nerve centre, beyond the origin of the roots. Similar cases are mentioned in which there was an exchange of a peripheral, for a central disorder. For instance neuralgia will sometimes terminate in mania, or melancholia occasionally the one will alternate with the other. An interesting case is mentioned by a German writer, of neuralgia of the left fifth nerve, which was followed by sensations of distress, a special feature of which was that the patient had not room enough; that everything around him was getting narrower and converging towards him; the walls seemed to be closing together round him, and the ceiling to be sinking down. If in the street, he appeared to be entering into a *cul de sac*, while crowds of people seemed to be pressing toward him. Here we have a reflected action characterized by abnormal ideas. The irritation of the nerve excites parts of the brain which are not involved in the neuralgia itself, just as we have in some cases, morbid co-sensations, in this we have morbid co-ideas, as result of the Hyperesthesia of the fifth nerve.

Now, it must be confessed, these various pathological facts are at

first somewhat confusing, and to understand them involves a perfect knowledge of the anatomy of the part affected, and in none more so than in connection with the Trifacial nerve; also one must possess a complete knowledge of the physiological action and then he is prepared to grasp the pathological facts referred to. The practicing dentist daily meets with cases of morbid action, direct and reflex. So while he has to possess particular mechanical knowledge in connection with the science of surgery, he is by right, called upon to make himself familiar with some of the more complex principles of physiology and pathology. It is not only his privilege; it is his duty. The earnest and successful efforts which the dentists of Ontario have made to elevate themselves by organization, and by securing Legislation which raises them to the position of a profession, and obtains security thereby to the public, against incompetent men, indicates the fact that they recognize at once their privilege and their duty.

The following appended case is taken from the *London Lancet* of a recent date. It was read before the Royal Chirurgical and Medical Society by Dr. Althaus. The case occurred in an otherwise healthy Australian. There were at first symptoms of inflammation, and afterwards compression and atrophy of the nerve. The case came under the authors care about two years after the commencement of the affection. There was then, total loss of muscular sensibility about the face, and a peculiar expression of the features in consequence of it. Vision was obstructed by leucoma of both cornea; yet the patient suffered much from photophobia, although little light could penetrate to the retina. An ophthalmoscopic examination of the fundus oculi showed optic disc, as far as it could be seen, quite normal. The common sensation of the face and scalp, was entirely lost on both sides. The sense of temperature was completely absent, and the senses of touch and locality were also lost: the conjunctiva was anæsthetic; the secretion of tears arrested, but there were pathological hypersecretion of conjunctival mucous. The mucous membrane of the nose was quite insensible, and its secretion much augmented; the sense of smell was in no way impaired. The mucous membrane of the mouth, including the tongue, was also anæsthetic. The secretion of saliva was arrested, but the flow of buccal mucous increased. The tongue had been severely bitten, as the patient was not at all aware of biting whenever he did so. The sense of taste was preserved. The muscles of mastication were paralysed; and the patient complained

of a rushing noise in the head, which was probably due to paralysis of the tensor tympani muscle, which is animated by the minor portion of the fifth nerve. The sense of hearing was normal, and there were no other morbid symptoms. The author therefore concluded that the pathological lesion was confined to the course of the fifth nerve between the pons varolii and the Gasserian ganglion. It could not be more peripheral, because not a single fibre of the trifacial nerve had escaped the injury; and it could not be more central, because there was no symptom of disease of the pons. The treatment consisted in the systematic application of the continuous galvanic current; no medicine was given; after three months treatment the patient was considerably improved in every respect, &c.

Dr Althaus deduces interesting conclusions from this case. It shows that the eye for instance, may become intolerant of light from affection of the fifth nerve, and no doubt on the contrary disease of the Cornea may produce evil effects in other periphery. It shows that instead of the gustatory nerve being the exclusive nerve of taste: that another, the glosso-pharyngeal at least assists.

SELECTED ARTICLES.

MODERN SCIENCE OF DENTISTRY.

In the *Boston Medical and Surgical Journal* of the 11th inst, we find an article on this subject, from the pen of Dr. Oliver Wendell Holmes, of Harvard University, written in such an exceedingly pleasing style, that we transcribe a portion of it for the benefit of our readers. The Doctor takes for his text, "The Dental Cosmos; a monthly record of Dental Science; observe, compare, reflect, record," and gives a review of the contents of the No. before him. Many of our readers being also readers of the Cosmos, we leave out those portions which refer to that Journal, as we have not space for the whole article.—Ed.

"The formation of a Dental School in connection with the Medical Department of Harvard University, naturally draws the attention of those engaged in medical teaching to the branch which has sought and gained their alliance. It soon becomes apparent that Dentistry has assumed an importance as a speciality of the healing art, which challenges for it an honorable recognition, The Dentist of to-day stands in the same relation to the tooth-puller of a past generation, as the surgeon, of our time to the well-remembered worthy of the razor and the lancet, who trimmed his customers hair or bled a vein for him with equal skill and science.

Two arts are absolutely necessary to make old age tolerable ; that of the optician, and that of the dentist. Take away the old man's spectacles and leave his jaws to be dismantled without repair, and what will life be worth to him ? No wonder those very sensible people we call savages, not having either of these helps, expect their children to see that they are not left to such a fate. When the eyes of the venerable warrior can no longer read the literature tattooed on his enemy's skin, when he has lost his teeth and can no longer do justice to the *pièce de résistance* furnished by the last skirmish of the tribe, his eldest son kindly dismisses him by a single blow of his war-club to that better region where the good cannibals go, and become vegetable feeders, as we charitably trust.

What would the old age of civilized life be—even in *Boston*—without convex lenses to help the failing sight ; jaunty eye-glasses for public occasions, honest old straddling spectacles for solitude ? No "Advertiser"—no "Transcript"—no "Atlantic"—no "Every Saturday"—no "Boston Medical and Surgical Journal"—would not the wretched dweller by the Frog-pond be glad to introduce the popular institutions of the South-sea islanders ?

Or take that other wrong of advancing years, the bitterest insult to the decaying bodily fabric which precedes the last "disgrace and ignominy of our natures," as death is spoken of by Sir Thomas Brown.

To have the broad manly jaws, once glittering with enamelled ivory, changed to the miserable likeness of a turtle's, by the gradual absorption and thinning of their edges ; to meet one's friend with a face that shuts up like an accordeon ; to mumble inarticulate words with organs that once held the listener captive with speech or song ; to come back of necessity to the pulpy food of childhood, without its innocent appetite and unquestionable digestion—what a fate to think of ! and yet that is what nature has in store for the old, and for many who are not old, save that art comes in and with infinite skill and almost miraculous success arrests the progress of destruction, and repairs, and restores the waste that Time has already made. That was a most impressive testimony to the need of these organs to make life tolerable which was reported a few years since, in one of our periodicals, of a celebrated personage. He had lost his mind, he said, but that he could do without, but he had lost his teeth and could not eat—this was the burden of his old age.

Those who have been led to take an interest in dental matters will be glad to know where they can learn of the condition and progress of an art which is every day coming nearer to a science.

And lastly, we may mention as of the first importance for the consideration of every dentist, an article by Dr. J. T. Codman, of Boston, on "Artistic or Expressional Dentristry." It is perfectly true, as Dr. Codman says, that the natural teeth are the best guide in replacing those which are gone ; but if these are all lost, judgement and the eye of an artist are necessary to give or restore the normal expression.

How many pitiable instances does this very useful paper recall of friends whom we have known as public characters, whom we knew by their portraits, whose whole physiognomy has been utterly changed by their dentist! Perhaps the contour of Washington's majestic face could not have been preserved after he was forced to trust himself in the hands of the dentist, but one cannot help thinking that if some of our skilful practitioners of to day had had the shaping of that immortal *vatelier* which lies behind the lips to which the statuary and the painter tried in vain to give expression, the Father of his Country would have looked upon us with a still nobler aspect. And with what a sad surprise do we greet our friend who has just come from the hands of some tasteless workman in dental porcelain, who has filled his mouth with a set of "dominoes" as the pugilists call them, staring, and glaring, and cheating him of all his natural expression, so that to talk with him is like making a new acquaintance, and we feel as if we were taking a liberty in speaking without an introduction!

The Dental Profession is doing itself great honor by the breadth of the studies which it encourages as well as by the vast amount of ingenuity which it calls into exercise. The debt of mankind to its labors is incalculable. Many a man, still more many a woman, would rather not live at all, than live disgraced by the wrongs of nature—if we may lay the fault to nature and not to artificial habits—shut out from all the charms of social intercourse by imperfect articulation and the sense of deformity, and it may be, condemned to invalidism by failure of the first process of reduction of the food. There is nothing the dental art does not attempt, and hardly anything within the bounds of reasonable belief it does not accomplish. It fills the teeth that would have gone in a year, and makes them last a life-time. It builds up a new fabric on what seemed the most worthless foundations, until like a monarch, the ancient fang wears a crown of solid gold, and the miracle of the legend is made an every-day fact. It straightens the most perverse irregularities, weeds the over-crowded arches, fills the gap which disenchanting the smile of beauty, enamelling the delicate substitute to the exact shade of the lost pearl, hushes the patient into a pleasing trance while it clears away the incumbrances that no longer serve him, and makes him once more comely and happy with a third dentition of gold and porcelain.

ALVEOLAR ABSCESS.

BY DR. W. H. SHADOAN.

(Continued from page 182.)

POINTS OF ESCAPE.

There are, perhaps, as many points of escape of the pus of abscesses

As there are different points of attack. As a general rule, the pus will find an opening through the most yielding part involved. If an incisor is affected, it is usually at the apex of the root; especially if it is an inferior tooth; but here we will remark that the six anterior inferior teeth, are rarely ever affected with abscess. Should such be the case it will be at the apex of the root. Not so with the superior incisors; they may be affected very often, and at various points. If abscess be produced from a dead or decaying nerve it will be at the apex of the root, and the opening will be at that point, but not always, though usually through the external wall of the alveolus. If the tooth thus affected be a central incisor, the opening may take a central or anterior course; in that event, when the pus reaches the suture, it will take its course along that suture, and find an escape at the posterior border of the hard palate. There are cases on record where the pus passed over the floor of the nasal cavity, and was discharged at the soft palate. Such cases, however, are seldom met with. The cases most usually met with, are those that discharge through the anterior wall of the alveolar process, at the apex of the root. There is very little difference in points of attack, as well as of discharge, in any of the ten anterior teeth. They have single roots, except occasionally the first bicuspid, which are sometimes double. If a molar of the superior maxilla be the seat of an abscess, it may be at the point of the roots, at the bifurcation, or on one side of the root; if the apex of the palatine root, the pus will usually be discharged through the process at the point of the root, or it may traverse the alveolus for some distance before it is discharged; the most usual is at the point opposite the apex. Abscesses of the buccal roots discharge their contents through the outer wall and usually at the nearest points. If the anterior buccal root has an abscess at the apex, it is sometimes the case that the discharge is into the maxillary sinus. When this is the case the treatment is complicated. The discharge from a third molar may be an inch or two from the seat of the disease, owing to its situation. There have been cases where the discharge was on the angle of the jaw, or on the side of the neck, and one or two cases where the pus escaped on the back part of the shoulder. A case of this kind was described to me, by an old and experienced Dentist some time since. In the inferior third molars, the discharge may be on the inner side, of the jaw, or at the lower edge, and is sometimes mistaken for scrofula, especially if the patient be of a scrofulous diathesis. The discharge from

the first and second inferior molars is always or nearly so, at the point of attack.

Before dismissing this part of the subject I will mention a few cases met with in my own practice :

First Case.—A little boy about eight years of age—of a manifest scrofulous diathesis, was brought to my office for consultation. On examination, I found large abscesses (or an abscess,) situated at the first and second left superior temporary molars, ulcerated at the roots and discharging the pus over the posterior angle of the malar bone, just under the canthus of the eye. I inserted the probang, and could distinctly feel the permanent teeth.

Second Case.—A lady has an abscess at the apex of the root of the left superior lateral incisor, it discharged pus at the apex ; in a few days she called to have it further treated as it seemed somewhat indolent. After giving it such treatment as I considered necessary, she asked me to look at the other side of her mouth, where, to my astonishment, I found a lump as large as a hazel nut, which, on being opened, was found to contain pus ; a further examination showed that the latter proceeded from the left side of the mouth. Here were two points of discharge from one abscess, one at the point of the root affected, and the other at a point between the right lateral and cuspidatus, a distance of at least one inch from the first. Another feature in this case is, that the whole face swelled, and beneath the right angle of the inferior jaw was swollen more than any other part. At one time I feared that suppuration might possibly take place at that point. The cause of so much swelling and inflammation was, I think, the malarious condition of the system. I have failed to say that the external opening may be through the gum and into the mouth, or it may be through the cheek and skin, making its appearance on the face, and if it be a lower tooth the pus may be discharged through the jaw avoiding the mouth altogether. A very remarkable case of fistulous opening through the inferior maxillary is reported by Mr. Bell, and on account of its singularity, I give his report, believing that it will be of benefit to some who have not seen it. This had resulted from an abscess in the socket of a dens sapientiæ of the inferior maxilla. The discharge had been kept up for two years previous to the time that the case was submitted to Dr. Bell for treatment. "At this time a funnel shaped depression existed in the skin, which could be seen to the depth of three-quarters of an inch, and a small probe could be passed through it into the sac

of the abscess underneath the root of the tooth. The abscess had now remained open for nearly two years, during the latter of which, the parts had been in the state I have described them. I removed the tooth, and as I had anticipated, no further secretion of pus took place but so perfectly had the communication been established, that when the gum healed, it left, by its own contraction, a fistulous opening, through which any fluid received into the mouth passed readily to the cheek, and I could, with care, introduce a fine probe completely through the passage. So free, in fact, was the communication that some of the hairs of the whiskers, with which the external portion of the depression was filled, grew through the external opening and appeared in the mouth,"

PUS.

Pus, under all circumstances, is nearly the same, and all chemists give to it the same chemical constituents. Pus, of a good or healthy quality, is of a creamy appearance, of a yellowish white color, inodorous, and opaque. Alcohol and heat coagulate it. In an analysis, by Schuilque it was found to contain albumen and water, a particular extractive substance, and a small quantity of soda, phosphate of lime, and other salts. "Normal pus consists essentially of two distinct parts: pus corpuscles, or pus globules, and a colorless, aqueous fluid liquor puris, in which the corpuscles are suspended." A variety of globules or corpuscles are described by other chemists, but the above is sufficient for our purpose, hence, we will not occupy space in describing them.

Unhealthy pus, the kind usually found in abscesses of an ichorus character, is very irritating to the parts affected, and as long as that condition exists the parts will remain in a diseased condition. It is of a thin dark appearance, and is irritating.

"Although it is true that such pus as is called healthy, indicates a convalescent state of an ulcer or abscess, the inference to be drawn from its appearance attaches exclusively to the parts which secrete it, while it may herald the abatement of local inflammation, it may, at the same time, give clear evidence of a state of disease incompatible with integrity of organs, or with life itself. Suppuration of the eye, liver, or of the lungs, would be a very serious matter, however healthy the pus might be."*

Some writers have considered suppuration a curative process, and

*Macartney on Inflammation.

have regarded the pus a valuable covering for the granulations or new growth of flesh, and so it is in some cases, but there are many exceptions.

Some parts of the body have a much greater disposition to form pus when inflamed than others. The cellular tissue, skin, and mucous membrane are very prone to suppurate, while the fibrous tissues manifest no disposition to it.

"Pus, is modified, by the nature of the part where it is formed, by the constitution of the individual, by various accidents occurring in the process of its formation, and by certain obscure laws which control the phenomena of these affections, which are called specific. It will also present different appearances, as it may be mixed with other fluids, as blood, saliva, bronchial mucus, etc."†

"When pus is irritating it is not so to the surface which secretes it but to the adjoining healthy structure over which it flows.

"Pus is heavier than water, and this quality assists us in distinguishing it from mucus.

"Mr. Hunter is of opinion that it is coagulable in muriate of ammonia, which peculiarity distinguished it from mucus and all other natural secretions, but this test was disputed.

"From the fact that hard and inflammatory tumors, in the course of inflammation become soft and yielding, and filled with pus, it was naturally supposed that the original solid parts were converted into this fluid, it is now well ascertained that such is not the case, but that pus is secreted by the arteries.‡—*Dental Register*.

†Macartney on Inflammation.

‡Bond's Dental Medicine

(To be continued.)

FILING TEETH—DR. ARTHUR'S METHOD.

BY JAMES TRUMAN, D. D. S.

The discussion of this subject, at the present time, in the various Dental Associations, is but another evidence of the disposition to adopt at one period, practices that have been discarded at a previous one as valueless, or absolutely injurious. It is undoubtedly true, that in all the modes of practice that have at various times been introduced in our profession, and been abandoned, there has been a large admix-

ture of truth, with a still greater amount of error. That this is true of filing teeth, must be evident to any one who will take the trouble to read the history of dentistry for the past hundred years. It is within the knowledge of all, that filing was mainly practised as a preventive of caries during the last, and the first twenty years of the present century. The skilful use of this instrument entitled the individual to rank high as an operator with the public, in France, England, and in this country. But we find writers in the latter part of the last century condemning the practice as dangerous and destructive to the teeth. Berdmore,* writing in 1770, speaks thus of this operation: "It cannot be supposed that any man is so lost to shame and humanity as to expose his patient to pain and inconvenience during life, merely for the sake of a trifling fee. The indiscriminate filing of teeth, so common at present, should be imputed only to ignorance, and may, I hope, be checked, by placing the subject in a clear light, and by *drawing the line* to distinguish where it may and where it may not be practised with safety." He then proceeds to give his views when it is expedient to use this instrument, which generally accord with present practices.

This able author had the clearest and best practical ideas of his day, and in many respects we have failed to improve upon the modes adopted and promulgated in his work. His opinion is, therefore, to be received with weight in considering the effects of this practice. But, while it is evident that the percentage of failures at that and subsequent periods must have been largely in excess of successes, we, it seems to me, have no reason therefore to conclude that no permanent good resulted from the practice. A large allowance must be made for the modes adopted, and for the evident want of knowledge in practical details and of the minute structure of the teeth.

Gradually, separating teeth by the file fell into disuse, until many excellent operators almost altogether abandoned it. I have long been satisfied that this is a practical error—believing that, where judiciously used it is one of our most valuable instruments. It must be evident to every practitioner, that a wholesale destruction of teeth is going on yearly, from a want of knowledge when and how teeth should be separated by the file. The prejudices that surround this subject prevent a clear judgement, and lead to fallacious reasoning.

*A Treatise on the Disorders and Deformities of Teeth and Gums, by Thomas Berdmore, London, 1770.

The propositions laid down by Dr. Arthur, as a basis of reasoning and practice, are as follows :

“ 1st. That caries will attack the proximate surfaces of all the teeth, except the inferior incisors, of the great majority of persons of the better classes in the United States of the present day.

“When caries of the superior incisors occurs on the proximate surfaces, previously to the twelfth year, its occurrence, sooner or later, on the same surfaces of all the teeth, except the inferior incisors, is almost certain. In the greater number of such cases, the caries will show itself before the twenty-fifth year. This predisposition to caries is greater in the female sex.

“ 2nd. That caries is not liable to occur at the points indicated, unless the teeth are in contact.

“ 3rd. That an artificial, permanent separation of the teeth will arrest superficial caries, or prevent its occurrence, if the attack has not actually begun.

“ 4th. That it is a popular fallacy to suppose that caries necessarily follows the removal of enamel.

“ 5th. That the most efficient means of preserving the teeth is to anticipate the attack of caries by separating them, when it is ascertained that caries is likely to occur on the proximate surfaces.”

The position laid down by Dr. A., that when the caries attacks the superior incisors previously to the twelfth year, that it will also attack the proximate surfaces of all the teeth, except the inferior incisors, cannot be successfully controverted. The teeth, in their various degrees of development, are necessarily subjected to the same influences that operate either to the benefit or injury of the structure. If therefore, caries be found on the proximate surfaces of the incisors, it may reasonably be inferred, that sooner or later it will make its appearance on all the teeth mentioned. Where this result does not follow, it must be from one of two causes :

1st. That the proximate surfaces of the teeth are not closely in contact, and admit freely the passage of the brush or fluids between.

2nd. That the patient by the exercise of constant care, has kept the surfaces free from all collections.

When decay attacks the incisors at a later period in life, it does not necessarily follow that the surfaces mentioned will be affected.

If, then, this position be true, it becomes a question of serious import whether, if one of the incisors be decayed at this early period, we

should at once proceed to make a separation in the balance to avoid the results almost certain to follow? I understand Dr. A. to answer, "that it is the best practice to make the separation before the progress of the caries has rendered this method of treatment impossible."

While I endorse the fact that caries will attack these anterior teeth, I do not think it advisable to enter at once upon the separation of all the proximate surfaces anterior to the bicuspid. There is always a doubt whether this result will follow, and we should give the teeth the benefit of this doubt, and wait until decay manifests itself. I make exception in the case of these anterior teeth, because they, above all others, are immediately under the supervision of the operator and patient; very few of the latter will permit caries to make any progress before calling the attention of the dentist to the fact. Separation can then be made of the proper form, and the simple cavity filled producing no disfigurement to the tooth.

The same reasoning and mode of practice does not, it seems to me, hold good with the bicuspids. Further removed from observation, and closely pressed together on their proximate surfaces, the ordinary opportunities for observation are not present.

Without entering into the theories of caries, that have at various times been promulgated, I may say in brief, that the destructive agent, having once effected a lodgment, soon breaks down the tubular structure of the dentine, and that is removed with great rapidity, without a corresponding loss of the hard enamel tissue. This is the process common to all the teeth.

We find in the proximate surfaces of bicuspids, superior and inferior, caries penetrating the teeth at the point of juncture of the surfaces, or slightly above it. It will then pass into the dentine, and very commonly destroy a large interior surface, before either dentist or patient is aware of the fact. To the properly educated eye, this progress of caries is manifested from its first entrance into the dentine, by the slight change of color of the enamel. If this infallible sign were always observed and attended to, there would be but little difficulty in the management of these teeth, but, that it is almost entirely neglected, is patent to all observers. The teeth are allowed to remain until the cavity is exposed by the breaking of the surrounding wall, or the pulp is nearly or entirely exposed, producing pain.

Caries may, however, be present in the enamel and give no indica-

tion ; indeed, I think it may truthfully be asserted that the majority of patients have these teeth at some stage of disease.

Now, admitting these to be facts, what would seem to be the proper course ? Certainly the whole duty of the operator has not been performed if he neglects to separate these teeth thoroughly, before leaving the case. This has been my practice for a long time, and one forced upon me by the observations of experience. Hence, whether the blue tinge be present or not, the teeth are filed freely, fully believing that if there be no decay, the separation will go far to prevent it, and if it be present, I am equally prepared to meet it.

The objections to filing the bicuspid, by those who admit their constant liability to decay, is based on the fact that it involves the destruction of so much good tissue, and that this cannot be done without injuring the shape of the tooth at the masticating surface, the mode usually adopted being to remove mainly from the lingual and palatine surfaces, and but little from the buccal. I do not see the force of the objection. That there will be a trifling disfigurement is admitted, but it is almost entirely hidden from view. The advantages derived more than counterbalance this objection.

The other and more important one is, that all filed surfaces are more liable to attacks of caries than those covered by enamel. This would perhaps, be true in practice, as it seems reasonable in theory, were it not that the fact is well known that an abraded surface of dentine never remains in the condition of a tissue with a series of open-mouthed tubes.

We see this beautifully illustrated in the deposition of secondary tissue in the pulp, as fast as attrition removes the crown, in its near approach to that organ. Here the constant but slight irritation renews the formative process, and a further deposition of calcareous particles and the formation of the irregular tissue, called osteo, or secondary dentine, takes place. This approximates dentine in its formation but has none of its regular tubular structure.

Another illustration may be found in the increased deposition of cementum in exostosis, produced by constant irritation. A better illustration may be seen on those masticating surfaces extensively worn by opposing teeth. The surface here presents almost the density and polish of the enamel. The same result is witnessed in the arrestation of caries by the consolidation of the tubes, with their contents, into one solid mass.

Reasoning, therefore, from analogy, all filed surfaces must, to a greater or less extent, partake of a similar character. Consolidation must necessarily take place, opposing any further encroachments of disease, with ordinary care.

If this be admitted, what possible injury can result in the use of the file, if the surface be subsequently properly polished? I have no hesitation in asserting that no evil results can follow.

Having considered some of the objections, what may we hope for in the way of benefits? In the first place, we obviate the danger of excessive loss of structure, which delay invariably occasions, in these important teeth. We give the patient ample opportunity to free the teeth from all particles of food, secretions, &c. In a word, we insure the teeth for an indefinite future of usefulness. On the other hand he who neglects them until decay has manifested itself; and some portion of the walls have broken away, has a tooth always unreliable, and one infinitely more of a disfigurement to the mouth.

The rule must be observed to form the spaces of a shape that will not only prevent the proximate surfaces from coming together, but that they may be readily freed from all secretions. To save the appearance of the tooth, the broadest separation must necessarily be made toward the palatine and lingual walls.

The whole process of filing may, and in all probability will, prove a failure, if the finishing process be not performed thoroughly. Any roughness left furnishes a lodgment for the materials necessary to produce the commencement of caries. The same care should be exercised here as in the finishing of fillings, and for the same reason. The most active ingredients in the oral secretions are those microscopic in their character; hence, depressions, however minute they may be, will probably cause a renewal of disease.—*Dental Times*.

**THE CANADA JOURNAL OF DENTAL SCIENCE,
REDIVIVUS.**

We dry our eyes on our editorial pen wiper, and put our sobs away to sleep. We feared that our sprightly friend "over the border" was defunct—frozen up in the snow; but are relieved by seeing his pleasant face again at our sanctum, as "good as new." Dr. Beers has called Drs. Trotter and Chittenden to his staff, and these gentlemen will run the machine to the benefit of the profession. We wish suc-

cess to the brave little "Cannuck." We have dental lions over here, beside whom the British Lion dare not wag his tail, yet when the Canadian animal comes to us in this most acceptable way, we say, "Long may he wave."—*Dental Office and Laboratory.*

BIBLIOGRAPHICAL.

PRONOUNCING MEDICAL LEXICON.

By C. H. CLEAVLAND, M. D. 11th Edition. Lindsay & Blackiston, Philadelphia. 1869. 302 pages.—This very neatly got up lexicon has reached us, and we take pleasure in recommending it to the Dental as well as the Medical practitioner. It is so common to hear mistakes of pronunciation of terms used in medicine and the collateral sciences, that such a work as the above cannot fail to be a desideratum. Correct pronunciation is of as much importance in speaking, as correct spelling is in writing, and that there is need of some good guide is felt by many whose knowledge of medicine cannot be doubted. This little work will fill the gap. An addenda is appended containing abbreviations used in prescriptions, and list of poisons and their antidotes.

CORRESPONDENCE.

To the Editors of the Canadian Journal of Dental Science:

GENTLEMEN,—At the meeting of the Dental Association, held at Cobourg in July 1867, a resolution was adopted condemning the public display of Dental show-cases.

Although not expressed in so many words, yet it was the tacit understanding that the carrying out of this resolution was to be one of the conditions of membership.

I would be glad to be informed, whether that resolution was rescinded by the Union Dental Association of Ontario, or whether it is still in force.

The reason of my enquiry is, I notice that a Dentist who was admitted a member of the Association in January last, still displays his show-case in the street.

Will you kindly inform me what steps to take, to bring before our Association, this offence (if offence it be) against our rule.

I remain,

Yours, &c.,

C. C.

ANSWER.

The resolution passed at Cobourg anent the displaying of Dental show-cases was not rescinded by the Union Society, but is in force still, and we hope will always remain so. We can imagine nothing more savoring of quackery than this. Fancy a Physician hanging out a showcase filled with pills, plasters; boluses, etc.—A Surgeon, one filled with saws, scalpels, trephining instruments, etc.—or an Obstetrician, his forceps, for the purpose of advertising himself, and when one has learned to admire that practice, he may be brought a step lower and learn to think it is fit and proper for a Dentist to hang out his show-case. No Mr. C. C. that resolution was not rescinded, and it is clearly your duty either to inform the Secretary of the Association of this breach of the spirit of the resolution, and ask him to remonstrate with the offender; or to bring the matter before the Association at its next meeting, when, the case will be disposed of summarily, or we greatly mistake the feeling of members of the profession on the subject.

C. S. C.

EDITORIAL.

THE ACT RESPECTING DENTISTRY.

On the 4th. of this month, the "Act respecting Dentistry" came into full effect, one year having elapsed, since the Bill was signed by the Lieutenant Governor, since which, all Dentists were allowed, by law, to practice without any restrictions.

Since the passage of the act, something over a hundred of the Dentists of the province, having complied with the requirements of the Board of Directors, appointed by the act, have been granted Licences: while to a smaller number, as compared with the number of those who have applied, Licences have been refused.

During the early part of the last session of Parliament, a few, who thought that compliance with the requirements of the board would

"affect their interests prejudicially," petitioned Parliament to repeal that portion of the Act, compelling all dentists who had not had an established office practice for the five years, to submit to an examination, and really there seemed, for a short time, to be great danger, of our losing one of the best provisions of the Bill. Upon more mature consideration of the question, however, on the part of the promoters of the "Repeal," they consented to withdraw all opposition to the Act as originally passed, and came forward in January, and passed the required examination.

Now, that so large a majority of the members of the Profession have become interested in maintaining the Law, it is not at all probable that any attempts will be made to induce Parliament to amend the Act, by making it less stringent, in its provisions than it now is.

Undoubtedly the Act is badly drawn up, and ambiguous in some of its parts, and decidedly defective in others. We think that the *number* of the members of the board should be reduced. Surely, seven members are enough to do all the business. By reducing the number to seven a great saving of expenses could be made.

Again the times fixed by the Act for the meeting of the Board, is, in our opinion, injudicious. The Board *must* meet the third Tuesday in January, and pass all who have made application before that time. Now, suppose, that the members of the Board should decide to open a Dental College, as it is most probable they will, it will be impossible for them to pass those attending, as there will not be time to give a course of Lectures, ending at that season of the year, more particularly, as we understand that it is intended to ask one or both Medical schools in Toronto to allow the students in Dentistry to attend the Lectures in Anatomy, Physiology, Chemistry, etc, in those Institutions.

Then, the time for holding the elections for subsequent Boards is fixed for the first Tuesday in June, thus compelling all who wish to vote, to go to Toronto for that express purpose. We think that such change should be made as would allow the Dentists of the country to elect subsequent Boards, while attending the meetings of the Association. These are some of the more important changes which we think ought to be made in the Act, but, we question very much, whether it would be advisable to ask for any amendments in it, until we have carefully tested its working for a few years.

It could hardly be expected that *we* should get an act that would

please all parties, when we see our brethren of the Medical Profession so generally dissatisfied with theirs. Defective as our Act is, it is infinitely preferable to any of the Bills, which have been passed in the States.

C. S. C.

JAPANESE DENTISTRY.

They have Dentists in Japan, who evidently do not enjoy the benefits of Dental Associations and Journals. The Japanese are a remarkable people; their jugglers are unsurpassed: but commend us not to their Dentists. Their manner of extracting a tooth must be tempting to their patients and reminds one of the method of removing a rusty screw. The tooth is tapped with a mallet, until it can be extracted with the fingers; pleasantly suggestive of an amount of malleting, which we should think would not commend Japanese Dentistry. Does any one know the Japanese fee for extracting, and whether "a young man from the country."—a friend of ours,—would be likely to find a favorable opening for practice in Jeddo, without incurring the risk of disembowelment!

W. G. B.

DENTAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

The bill to incorporate the above Association has passed a third reading and become law. Several important alterations have been made in it, and, as it is a matter of interest to the profession at large we will publish it entire in our next number. Much credit is due to Dr. Bernard,—The Father of Canadian Dentistry,—who went to Quebec and pushed matters until brought to a climax.

W. G. B.

THANKS TO DENTAL OFFICE AND LABORATORY.

Thanks to our friends of the "Dental Office and Laboratory," for their spicy notice of the re-appearance of this Journal. It is true it has had some chilling influences to contend against, and has been in a state of torpidity, but with the re-animating rays of a united profession, turns out with the vigor of Bruin in spring. The necessities of those over whom the old lion has had control, have not been so

great to require him to devote his talents to the science and art of Dentistry, as those of our cousins across the lines. Their Dental as well as their mental and general physical constitution being very vigorous, the giving to the world songs and literature, which will be sung and read, as long as the English language is spoken, and the building and manning of Iron Clads, are better suited to his calibre than the construction of artificial dentures. And the young dental Lion of the north on this side of the Atlantic, when as old as the big bird south of us, if we may judge from his progress for the last five years, will be able to go over to our friends, with the vigor of Goths and Vandals, and not only "wag his tail" but growl a little.—May the hinges of friendship never rust, on which the spicy and valuable Dental Office and Laboratory, and this humble Journal, turn.

R. T

TO OUR SUBSCRIBERS.

With this No. our subscribers will have received the Journal for two thirds of the year. About one-half only have sent in their subscriptions. We do not wish to be continually "dunning," but we really need the money now due us, and will feel greatly obliged, if all who have not yet done so, will remit to us at once. We fancied that the Printer looked a little "squint-eyed" at us, a day or two ago, and we hope we shall not be compelled to turn such a *glance* towards our subscribers.

THE DENTAL ACT OF THE PROVINCE OF QUEBEC.—We regret that we are unable to publish the act incorporating the Dental Association of Quebec, in this number as we promised. It was not received till the last moment before going to press.

NOTICES OF THE PRESS.—We have received quite a number of favorable notices of the *Journal* from the Press of Canada and the States, for which we return our most hearty thanks. We hope to be able, with the assistance of our brethren in the Profession, to conduct it in such a manner, in the future, as to merit the kind words and wishes which we have received.

MISCELLANEOUS.

PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

A preliminary report of the Committee of the Odontological Society of Great Britian was presented by Mr. W. A. Harrison, Chairman of the Committee, at a crowded meeting of the Odontological Society on Monday evening. By the kind permisson of Mr. Harrison, we are enabled to give a digest of the Report ; but this we must however, curtail more than we would otherwise have done, owing to pressure on space.

The Committee, after paying a just tribute to the great service done by Dr. Evans in introducing the gas successfully as an anæsthetic into this country, proceed, in the first place, to consider in detail, how far nitrous oxide gas is an efficient anæsthetic. To ascertain this, experiments upon various lower animals were instituted. From these, they arrived at the conclusion that it was free from atmospheric air, a powerful anæsthetic, more rapid in its action, although more evanescent than chloroform and other anæsthetics ; and that, although, if pushed, it produced death, still the animals were often speedily brought round, when apparently dead, by the admission of air.

They next proceeded to arrive, if possible, at the conclusion whether as an anæsthetic in man, it was as safe as, or safer than, those in general use. To this they give a guarded answer for the present ; stating however, that it is at least as safe, for short operations as any other anæsthetic.

They next enumerate the conclusions arrived at, founded on 1380 cases watched and carefully reported on by the various members of the Committee, and on 1051 cases reported to them on trustworthy authority, as to the advantages and disadvantages of the gas. The advantages are, shortly, these : the rapidity of its effects in producing anæsthesia, the shortest time being twenty-five seconds ; rapidity in recovery ; its agreeable nature ; its being tasteless and less irritating ; almost entire freedom from nausea and vomiting, occuring in less than one per cent, ; absence of headache and vertigo as a general rule, after complete recovery from the anæsthesia. The disadvantages are noted as consisting in its unsuitableness for long operatinos on account of the rapidity of recovery ; in the difficulty of making and transporting the gas, and also the expense of the agent : its being troublesome to make, and requiring unusually complicated apparatus in its administration :

in the undesirability of quick recovery in operations followed by much pain ; in the administration being accompanied by twitchings which render it unsuitable for delicate operations.

The Committee next foot up the physiology of its action, with the view to obviate, if possible, any serious results which might follow in its administration. They confess they are as yet unable to explain the *rationale* of its action ; but recommend, from experience with lower animals, that, when dangerous symptoms appear, the exhibition be at once suspended, and, should respiration not take place, artificial respiration be resorted to.

The Committee recommend, as the best, most convenient, and cheapest method of procuring the gas in a pure state, the plan of Messrs. John Bell & Co. In its administration, they observe that, whatever instrument is employed, it ought to be as air tight as possible ; but they offer, nothing fresh, of importance, in this respect, or in the mode of administration. There are, however, a quantity of useful practical details given of considerable interest.

As regards the question, whether there are any special conditions of the system contra-indicating its use, they can only say that they have administered, it in various stages of pregnancy, in suckling women, in persons subject to asthma, epilepsy, and the like, without any deleterious effects. They, however, advise caution, especially in those affected by disease of the heart, vessels, or lungs. They conclude by drawing the attention of the profession to the success attending the anæsthetic in America by Dr. Colton, and in France by Dr. Evans ; and observe that they propose to prosecute further experiments on this subject, which they hope to lay before the profession at some future time. An appendix of some interesting cases is attached to the report.—*Amer. Jour. Dental Science.*

NOTES FROM L'UNION MEDICALE.

DR. FORT in a surgical memorandum remarks that among the numerous cases of facial neuralgia is one which authors do not notice, but which frequently occurs. This cause, almost certain to be a source of error to practitioners, is a lesion of the buccal mucous membrane, behind the molars, and produced by the evolution of a wisdom tooth. The functional disturbances brought about by this slight lesion

are so intense as to lead sometimes to suspicion of more serious trouble.

M. Forget in a criticism of M. Fort's remarks, says that it is very true that the evolution of wisdom teeth produces peculiar disturbances; and that the fact has already been pointed out by others. In a memoir published in 1828, on the various deviations of which the lower wisdom teeth are susceptible, Dr. Toirac, says M. Forget, reports six cases bearing on this point. In one of these cases the patient was subject to slight attacks of inflammation for a year after the left lower wisdom tooth began to appear. His cheek, not very much swollen, was extremely sensitive to the slightest pressure, while deglutition was almost impossible. The left tonsil was swollen, and the soft palate was very red. The posterior third of the crown of a wisdom tooth was found to be covered with a fleshy band, consisting of the gum, which was of a violet color, painful and slightly ulcerated.

▲ worse case was reported by Dr. Desirabode, in 1851. A man of 25 years committed suicide, and it was supposed on account of violent dental neuralgia. At the autopsy it was found that the left lower wisdom tooth was directed horizontally from before backwards, the roots being in apposition with the base of the ramus, and its crown applied to the posterior molar, upon which it exerted strong pressure. The gum was greatly swollen. No other lesions existed in the dental apparatus.

M. Forget cites a still more aggravated case. A man 26 years old had been for a long time affected with neuralgia referred to the alveoli of the molar teeth on the right side of the lower jaw. The entire ramus was tumefied, and to a considerable degree. Impeded articulation; swelling of the whole *masseter* region, so to say; hyperostosis of the coronoid process. M. Maisonneuve, having exposed the bony tumor, applied the trephine in search of the tooth. The result not being satisfactory, resection of the jaw was done, at the alveolus of the first molar, and the condyle was disarticulated. The bone having been divided by a section parallel to its axis, M. Forget found several purulent cavities which had burrowed into its substance. It was an instance of medullary osteitis of the ramus of the jaw extending to the interior of the condyle, which was hollowed out, by a little purulent cyst opening close to the articular cartilage. The severe symptoms and the structural lesions had for their point of departure the abnormal enlargement of the wisdom tooth, which was shut up in

the base of the coronoid process, and rising scarcely to the height of a millimetre above the level of the alveolus which it had hollowed out for itself. The tooth was of twice the normal size, the crown of it abutting against the neck of the adjoining tooth, in such a manner that in order to take rank in the dental arch, it would have been under the necessity of displacing from below upwards the molar which opposed its upward growth. It was this obstacle which compelled it to develop in the interior of the bone.

We draw off the above cases under the impression that it might possibly help the general practitioner, now and then, out of an obscure diagnosis, to be apprised of them. *Boston Medical Surgical Journal.*

VACCINE VIRUS FROM KINE.

So constantly is the vaccinator met with the challenge, honestly, and earnestly, put by anxious mothers, "Is your matter good?" that it cannot be denied that there exists a strong and almost innate popular idea of a possible impurity in vaccine virus, as commonly used. In other words, people seem firmly convinced that vaccination may communicate other diseases than its own, and that it is a matter of the highest moment to procure virus which is free from suspicion of even a possible taint.

The medical profession have not shared in this impression, except so far as to be very careful not to employ virus from so called "humory children," or those liable to it from hereditary taint. No honest physician uses such virus, from conscientious scruples. The advances in medical knowledge, however, are rendering this subject less and less an open question, as time rolls on. It is now proved that syphilis may be communicated by vaccination. In the *London Lancet* for 1862, an account is given of a town in Italy which was syphilized in this manner. One case was once reported to the Boston Society for Medical improvement. It is, however, stated that the syphilis is communicated only when *bloody* lymph is used; so that if simply lymph, pure and free from admixture is employed, this loathsome disease cannot be imparted. However, when it is admitted that one other disease besides vaccinia has been imparted by vaccination, the question arises, Why may not pityriasis, psoriasis, and other skin diseases be imparted in the same way? From considerations like these,

measures have been taken in foreign lands to procure vaccine virus direct from the heifer, and thus have a virus which is as pure as possible. They propose to renounce the vaccination from arm to arm.

Some idea of the importance of this subject may be derived from the fact that the Russian Government has ordered Dr. Bulmerink to organize, at St. Petersburg, a service to produce animal virus. In Naples, this practice dates back to the year 1810, by Dr. Gallati. In 1858 M. Negri revived the procedure, and is deemed the great authority at the present time. From thence, the practice has spread to Paris where Dr. Lanoix was very active in its introduction. (*See Etude sur La Vaccinateur Animale*, Paris 1866. New York Ballier Bros.)

It is thus seen that the medical profession have endeavored to supply their clients with virus of the most unexceptional character, and, by their use of it in their own families, have given countenance to the idea that vaccine virus is preferable.

There is also an impression that vaccine virus deteriorates by long use, by many removes from the cow. This is not sustained by facts. The protective influence is not found to be destroyed. In fine, the great advantage of vaccine virus from kine must lie in its being entirely free from syphilitic taints, and probably of all other infections which are believed by some to be communicated in connection with vaccination.—*Boston Journal of Chemistry*.

LAWS TO REGULATE THE PRACTICE OF DENTISTRY.

It is a matter of much gratification to know that the profession in some of the neighboring States is moving in right good earnest, for obtaining laws to regulate the practice of Dentistry. Pennsylvania is moving in the right direction and with much energy. A State Society has there been formed, and its first work is to be devoted to this special object. This is the right method of taking hold of the matter. The interest of the profession should be as fully secured as possible. Indiana is also moving in the matter. The profession there has its State Society, through which it is operating for legal recognition. Michigan is also making a strong effort this winter, and we trust other States will soon take the matter in hand and do what may be

done in this direction. Legislation to regulate the profession in this country is a new feature, the propriety of which has been called in question by many. It has been often objected that it is in opposition to the genius of our free institutions. A more mistaken idea, however, could hardly be entertained. The object of such laws, as it should be in all legislation, is simply the restraining and abatement of that which is injurious and wrong, and the encouragement and fostering of that which is right and productive of good. It is preposterous to assume that any one has the right and should have the liberty to do that, for the faithful performance of which he is incompetent, and emphatically is this so, when the health and welfare of a fellow being is involved.

The law in Ohio has been in existence about nine months, and though only partially operative, and the time is yet too short to make any kind of a test of its efficiency, yet enough is already manifestly apparent, to indicate that it will be eminently efficient for good, though the law is, to a large extent, inoperative for four years to come. A number of cases could be referred to in which incompetent quackish pretenders, have abandoned their business altogether, or gone to other States, where they could legitimately prey upon their unsuspecting victims.

We hope the profession in our neighboring States will keep these gentry moving till they are in the "last ditch." *The Dental Register.*

EXAMINATIONS IN OHIO.

On the 1st and 2d of December, the State Board of Dental Examiners held a session at Columbus, for the examination of those who might present themselves, that their qualifications to properly practice in the Dental profession might be testified to by that Board. A work of this kind is no easy matter—to bring out in clear view the measure of the professional attainments of those with whom the committee would necessarily be but slightly acquainted. The examination of the office or college student is a very easy affair, compared with the work of this committee. The preceptor, if he is faithful, knows the weak and the strong points of his pupil, and the pupil knows something, perhaps much, of the method of procedure of his preceptor.

In the examinations of practitioners of experience, it is not proper

or just to enter into minute details, but to ascertain to what extent general principles are possessed, upon which correct practice must be based.

WHEN TO EXTRACT TEETH.—DR. I. Williams thinks there are, perhaps, but three cases in which he cheerfully and willingly extracted teeth. One was in extreme old age, where the processes are absorbed away and the teeth have become loose, causing irritation. Another was in the case of temporary teeth, where the permanent ones are making their appearance, and the third in cases where the teeth are very much crowded, and it is absolutely necessary to take out one on each side to give them room.

He would not be understood that he would not extract teeth in other cases. In such cases as had been referred to, where, perhaps, all the teeth in the mouth are decayed, and where the patient is absolutely too poor to give the time and attention to them, he might, in some such cases, with reluctance extract them, but with him, cases with such indications were very few. He was pleased with a remark he had seen in the REGISTER some time ago, with regard to saving even the roots of teeth. He had thought upon it much since that, and from what he had seen he was satisfied that even the roots of the teeth should be much valued. He had seen a root filled with gold twenty-five years ago, and it was still performing the part of a tooth well, even though it was but a root, and the processes had become firm and the root used as a tooth, had become to look like a tooth. He was in favor of saving the roots and all the teeth that could be saved.—*Dental Register*.

UNIVERSITY OF MICHIGAN.—The storm of professional wrath has been too much for the Regents of the Michigan University. The Supreme Court of that State has decided that the attempt to establish the homeopathic department at some other place than Ann Arbor, does not fill the intention of the Legislative enactment, whereby the University was to receive pecuniary aid, on condition of establishing this Chair. The Regents have, therefore finally receded from their action in the matter, and decline to accept the benefaction upon the conditions provided. It remains to be seen how far this agitation will affect the reputation and classes of the medical department.—*Cincinnati Lancet and Observer*.

DENTAL PUNS.—To what town in Poland should you go to have a tooth extracted? Ans.—Pultusk. When do your teeth usurp the functions of the tongue? Ans. When they are chattering.